CLAIMS

What is claimed is:

1. A method of facilitating interaction between a human user and a processing system, the method comprising:

receiving information associated with the user at the processing system; and

using the information to optimize a spoken dialog between the user and the processing system.

2. A method as recited in claim 1, wherein said using the information to optimize the spoken dialog between the user and the processing system comprises using the information to shorten a duration of the spoken dialog between the user and the processing system.

3. A method as recited in claim 2, wherein said using the information to shorten the duration of the spoken dialog comprises using the information to reduce the amount of information the user is required to provide during the spoken dialog.

4. A method as recited in claim 1, wherein said using the information to reduce the amount of information the user is required to provide during the spoken dialog comprises using the information to reduce a number of items of information the user is required to speak during the spoken dialog.

5. A method as recited in claim 1, wherein said using the information to reduce the amount of information the user is required to provide during the spoken dialog comprises using the information to reduce a number of states of the spoken dialog.

6. A method as recited in claim 1, wherein said using the information to optimize the spoken dialog is performed dynamically in response to the user accessing the processing system.

7. A method as recited in claim 1, wherein said receiving information associated with the user comprises receiving the information from a remote site on a network.

8. A method of facilitating operation of a plurality of interconnected speech-enabled sites on a network, the method comprising:

receiving information about a user at a server system on the network; and

providing the information about the user to a speech-enabled site of the plurality of interconnected speech-enabled sites, in response to the user accessing said speech-enabled site.

9. A method as recited in claim 8, further comprising maintaining the information about the user at the server system after said receiving and prior to said providing.

10. A method as recited in claim 8, wherein said maintaining the information about the

user at the server system comprises maintaining the information in a user profile.

11. A method as recited in claim 8, wherein the information about the user is for use by the speech-enabled sites in optimizing spoken dialogs between the speech-enabled sites and the user.

12. A method as recited in claim 8, further comprising using the server system to acquire the information about the user from a first site on the network based on an interaction between the user and the first site.

13. A method as recited in claim 8, further comprising using the server system to execute a voice browser for enabling a user to access the speech-enabled sites on the network.

14. A method as recited in claim 8, further comprising using the server system to maintain a look-up service configured to enable the speech-enabled sites to receive the information about the user.

15. A method as recited in claim 8, wherein said providing comprises using the server system to broker the information about the user for the plurality of interconnected speech-enabled sites.

16. A method as recited in claim 13, wherein said using the server system to broker the information about the user comprises using the server system to selectively provide the plurality of interconnected speech-enabled sites with access to the information about the user.

17. A method as recited in claim 13, wherein said using the server system to broker the personalized information associated with the user comprises using the server system to verify access to the personalized information by executing a user verification process.

18. A method as recited in claim 8, wherein said providing comprises using the server system to enable the speech-enabled site to directly contact a second speech-enabled site on the network, to receive information about the user.

19. A method of executing a spoken dialog between a user and a speech-enabled site in a network including a plurality of interconnected sites, the method comprising:

acquiring information associated with the user at a first speech-enabled site of the plurality of sites;

providing said information to a second speech-enabled site to which the user requires access; and

using said information at the second speech-enabled site to optimize a spoken dialog between the user and the second speech-enabled site.

20. A method as recited in claim 19, wherein said acquiring information associated with the user at the first speech-enabled site comprises acquiring the information associated with the user from a third site on the network.

21. A method as recited in claim 19, wherein said acquiring information associated with the user at the first speech-enabled site comprises acquiring said information from the user.

22. A method as recited in claim 19, further comprising maintaining a look-up service for enabling the information associated with the user to be shared between the first and second speech-enabled sites.

23. A method as recited in claim 19, wherein said providing comprises providing said information to the second speech-enabled site in response to the user requiring access to the second speech-enabled site.

24. A method of executing a spoken dialog between a user and a speech-enabled site in a network including a plurality of voice-hyperlinked speech-enabled sites, the method comprising:

acquiring information associated with the user at a first speech-enabled site of the plurality of speech-enabled sites during a first spoken dialog between the user and the first speech-enabled site;

in response to the user initiating a voice hyperlink to access a second site of the plurality of speech-enabled sites, providing the information associated with the user to the second speech-enabled site; and

optimizing a second spoken dialog between the user and the second speech-enabled site by applying the information associated with the user to reduce a number of states of the second dialog.

25. A method as recited in claim 24, wherein said optimizing the second spoken dialog comprises using the information associated with the user to reduce a number of items of information the user is required to speak during the spoken dialog.

26. A method as recited in claim 24, wherein said optimizing the second spoken dialog comprises using the information associated with the user to reduce the length of the second dialog.

27. A method of facilitating operation of a plurality of interconnected speech-enabled sites on a network, the method comprising:

providing a server system on the network; and

operating the server system to selectively provide the speech-enabled sites with access to information about users of the speech-enabled sites.

28. A method as recited in claim 27, wherein the information is for use by the speech-

enabled sites in executing spoken dialogs with the users.

29. A method as recited in claim 27, wherein the information is for use by the speech-enabled sites in optimizing spoken dialogs with the users.

30. A method as recited in claim 28, wherein said operating the server system to selectively provide the speech-enabled sites with access to information about users of the speech-enabled sites comprises using the server system to selectively provide the speech-enabled sites with access to information about the users, based on user profiles of the users.

31. A method of facilitating operation of a plurality of interconnected speech-enabled sites on a network, the method comprising:

using a server system on the network to execute a browser for enabling a user to access the speech-enabled sites; and

using the server system to broker information associated with the user for the speech-enabled sites on the network.

32. A method as recited in claim 31, wherein the information is for use by speech-enabled sites on the network to optimize spoken dialogs with the user.

33. A method as recited in claim 31, wherein the browser is a speech-enabled browser.

34. A method as recited in claim 31, wherein the browser is a DTMF responsive browser.

35. A method as recited in claim 31, wherein said using the server system to broker the information associated with the user comprises using the server system to selectively provide the plurality of interconnected speech-enabled sites with access to the information associated with the user.

36. A method as recited in claim 31, wherein said using the server system to broker the information associated with the user comprises using the server system to verify access to the information by executing a user verification process.

37. A method as recited in claim 31, wherein said using the server system to broker the information associated with the user comprises using the server system to verify that a particular site on the network is authorized to access the information associated with the user.

38. A method as recited in claim 31, wherein the information associated with the user is maintained at a first site on the network; wherein said using the server system to broker the information associated with the user comprises:

receiving a request for information associated with the user, the request

associated with a second speech-enabled site on the network, and

in response to the request, using the server system to provide the information to the second speech-enabled site.

39. A method as recited in claim 31, wherein a first speech-enabled site on the network maintains the information associated with the user, and wherein said using the server system to broker the information associated with the user comprises:

receiving a request for information associated with the user, the request associated with a second speech-enabled site on the network; and

in response to the request, enabling the second speech-enabled site to communicate with the first speech-enabled site, such that the second speech-enabled site obtains the information associated with the user from the first speech-enabled site.

40. A method as recited in claim 31, wherein said using the server system to broker information comprises:

acquiring the information associated with the user from a first site on the network based on an interaction between the user and the first site; and

providing the information to a speech-enabled site on the network in response to the user accessing the speech-enabled site.

41. A method as recited in claim 40, wherein the information is for use by the speech-enabled sites on the network in optimizing spoken dialogs with the user.

42. A method as recited in claim 31, further comprising maintaining a look-up service in the browser, the look-up service configured to enable the speech-enabled sites to access the information.

43. A method of facilitating operation of a speech-enabled site on a network, the method comprising:

receiving a request at a server system for information associated with a user, the request associated with a speech-enabled site on the network and relating to a dialog between the speech-enabled site and the user, the information maintained on a second site on the network; and

using the server system to enable the speech-enabled site to obtain the information associated with the user from the second site.

44. A method as recited in claim 43, wherein said using the server system comprises executing a speech-enabled browser.

45. A method of facilitating operation of a speech-enabled site on a network, the method comprising:

receiving a request at a server system for information associated with a user, the request associated with a speech-enabled site on the network and relating to a dialog between the speech-enabled site and the user, the information maintained on a second

site on the network; and

using the server system to provide a service of the second site to the speech-enabled site, to provide the information associated with the user to the speech-enabled site.

46. A method as recited in claim 45, wherein said using the server system comprises executing a speech-enabled browser.

47. An apparatus for optimizing a spoken dialog between a human user and a processing system, the apparatus comprising:

means for receiving information associated with the user; and

means for using the information to reduce an amount of information the user is required to provide during a spoken dialog between the user and the processing system.

48. An apparatus as recited in claim 47, wherein said means for receiving information associated with the user comprises means for receiving the information from a remote site on a network in response to the user accessing the processing system.

49. A speech-enabled processing system comprising:

an audio interface with a remote user;

a processor;

a storage facility coupled to the processor and having instructions stored therein which, when executed by the processor, cause the speech-enabled processing system to:

receive information associated with the remote user from a remote processing system,

use the information to optimize a spoken dialog between the remote user and the speech-enabled processing system, and

initiate execution of the optimized spoken dialog between the remote user and the speech-enabled processing system using the audio interface.

50. An apparatus configured to allow a user to interactively browse a telephony-based network, the apparatus comprising:

means for coupling a user to a first speech-enabled service at a first location on the network;

means for acquiring information associated with the user;

means for outputting an indication audibly detectable by the user, the indication corresponding to a second speech-enabled service at second location on the network;

means for detecting the user speaking an utterance matching the indication;

means for coupling the originating user to the second speech-enabled service in response to the user speaking an utterance matching the audio indication; and

means for providing the information associated with the user to the second speech-enabled service in response to the user speaking an utterance matching the audio indication, the information for use by the second speech-enabled service to

~~optimize a spoken dialog between the user and the second speech-enabled service.~~

51. An apparatus as recited in claim 47, further comprising means for using the information associated with the user at the second speech-enabled site to optimize a spoken dialog between the user and the second speech-enabled site.

52. A system comprising:

a first processing system configured to execute a speech-enabled browser, the browser configured to maintain information associated with a user; and

a second processing system coupled on a network to the first processing system and configured to operate as a speech-enabled site, the second processing system configured to

in response to receiving an access request from a remote user, transmit a request to the browser for the information associated with the user;

receive the information associated with the user in response to transmitting the request;

apply the information associated with the user to optimize the dialog with the user by reducing the number of required states of the dialog; and

execute the optimized dialog with the user.

53. A system as recited in claim 52, wherein the browser is further configured to broker the information for speech-enabled sites on the network.

54. A system as recited in claim 53, wherein the browser is configured to broker the information associated with the user by selectively providing the speech-enabled sites with access to the information associated with the user.

55. A system as recited in claim 53, wherein the browser is configured to broker the information associated with the user by verifying access to the information by executing a user verification process.

56. A system comprising:

a first processing system configured to execute a speech-enabled browser, the browser configured to maintain information associated with a user; and

a second processing system coupled on a network to the first processing system and configured to operate as a speech-enabled site, the second processing system configured to

maintain data for executing a dialog with a user of a third processing system on the network;

receive an access request corresponding to activation of a voice hyperlink by the user;

in response to receiving the access request, transmit a request to the browser for the information associated with the user;

receive the information associated with the user in response to

transmitting the request;

use the information associated with the user to optimize the dialog with the user; and

execute the optimized dialog with the user.

57. A system as recited in claim 56, wherein the first processing system is configured to broker the information for speech-enabled sites on the network.

58. A system as recited in claim 57, wherein the first processing system is configured to broker the information associated with the user by selectively providing the speech-enabled sites with access to the information associated with the user.

59. A system as recited in claim 58, wherein the first processing system is configured to broker the information associated with the user by verifying access to the information by performing a voiceprint analysis of the user.

60. A speech-enabled network comprising:

a plurality of speech-enabled sites; and

a central server coupled to the plurality of speech-enabled sites, the central server including:

a processor; and

a storage facility coupled to the processor and storing instructions which,

when executed by the processor, cause the central server to selectively provide the speech-enabled sites with access to information about users of the speech-enabled sites.